



# Global Climate Change Projection Data by MOEJ (in cooperation with JMA)

## 1. IDENTIFICATION INFORMATION

Name	Global Climate Change Projection Data by MOEJ (in cooperation with JMA)
Abbreviation	MOEJ and JMA Global Climate Change Projection Data
Metadata Identifier	GCM60_ADAPT201320230727070430-DIAS20221121113753-en

## 2. CONTACT

### 2.1 CONTACT on DATASET

Name	Climate Change Adaptation Office, Policy Planning Division, Global Environment Bureau
Organization	The Ministry of the Environment of Japan
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### 2.2 CONTACT on PROJECT

#### 2.2.1 Data Integration and Analysis System

Name	DIAS Office
Organization	Japan Agency for Marine-Earth Science and Technology
Address	3173-25, Showa-Cho, Kanazawa-ku, Yokohama-shi, Kanagawa, 236-0001, Japan
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## 3. DOCUMENT AUTHOR

Name	Climate Change Adaptation Office, Policy Planning Division, Global Environment Bureau
Organization	The Ministry of the Environment of Japan

## 4. DATASET CREATOR

Name	Climate Change Adaptation Office, Policy Planning Division, Global Environment Bureau
Organization	The Ministry of the Environment of Japan

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## 5. DATE OF THIS DOCUMENT

2023-07-27

## 6. DATE OF DATASET

creation : 2014-03-31

publication : 2014-03-31

## 7. DATASET OVERVIEW

### 7.1 Abstract

This dataset is the output data of GCM60, the global climate change projection model provided by Meteorological Research Institute, as part of the project which aims to provide detailed climate change projections around Japan for adaptation planning.

### 7.2 Topic Category(IS019139)

climatologyMeteorologyAtmosphere

### 7.3 Temporal Extent

Begin Date	1984-09-01
End Date	2100-08-31
Temporal Characteristics	3hourly or daily

### 7.4 Geographic Bounding Box

North latitude bound	90
West longitude bound	-180
Eastbound longitude	180
South latitude bound	-90

### 7.5 Grid

Dimension Name	Dimension Size (slice number of the dimension)	Resolution Unit
row	640	60 (km)
column	320	60 (km)
vertical	64	unequal (level)

### 7.6 Geographic Description

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## 7.7 Keywords

### 7.7.1 Keywords on Dataset

Keyword Type	Keyword	Keyword thesaurus Name
theme	GLOBAL CHANGE > Global climate models	AGU
theme	Atmosphere	GCMD_science
theme	Climate	GEOSS

### 7.7.2 Keywords on Project

#### 7.7.2.1 Data Integration and Analysis System

Keyword Type	Keyword	Keyword thesaurus Name
theme	DIAS &gt; Data Integration and Analysis System	No_Dictionary

## 7.8 Online Resource

You can download this dataset from DIAS. : <https://data.diasjp.net/dl/storages/filelist/dataset:214>

## 7.9 Data Environmental Information

## 7.10 Distribution Information

name	version	specification
binary		Meteorological Research Institute GCM60 output data(raw binary data)

## 8. DATA PROCESSING

### 8.1 Data Processing (1)

#### 8.1.1 General Explanation of the data producer's knowledge about the lineage of a dataset

binary : raw data

#### 8.1.2 Data Source

Data Source Citation Name	Description of derived parameters and processing techniques used

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## 9. DATA REMARKS

[List of variables]

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sfc\_avr\_3hr (Time Scale: 3 hour)  
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PRECIPI Total Precipitation kg/m\*\*2/s  
FLLH latent heat flux W/m\*\*2  
FLSH sensible heat flux W/m\*\*2  
DLWB Downard Longwave Radiation at the Bot W/m\*\*2  
ULWB Upward Longwave Radiation at the Bot W/m\*\*2  
DSWB Downward Shortwave Radiation at the Bot W/m\*\*2  
USWB Upward Shortwave Radiation at the Bot W/m\*\*2  
PPCI Convective precipitation kg/m\*\*2/s  
SNP Snow Precipitation kg/m\*\*2/s  
ROF Total Runoff kg/m\*\*2/s  
CSDLWB Downard Longwave Radiation at the Bot (Clear Sky W/m\*\*2  
CSDSWB Downward Shortwave Radiation at the Bot (Clear S W/m\*\*2  
CSUSWB Upward Shortwave Radiation at the Bot (Clear Sky W/m\*\*2  
TCLLOUD Total cloud amount %

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sfc\_snp\_3hr (Time Scale: 3 hour)  
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TA Surface Air Temperature at 2m K  
UAOPN Surface Zonal Velocity at 10m at open space m/s  
VAOPN Surface Merid. Velocity at 10m at open space m/s  
QA Surface Air Specific Humidity at 2m kg/kg  
WSL010 H2O SOIL upper 10cm kg/m\*\*2  
TGEF Effective Ground temperature (Radiation) K  
PS SURFACE PRESSURE Pa

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sfc2\_avr\_day (Time Scale: Day)

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10m at open space m/s

VAOPN Surface Merid. Velocity at 10m at open space m/s

QA Surface Air Specific Humidity at 2m kg/kg

TGEF Effective Ground temperature (Radiation) K

PS SURFACE PRESSURE Pa

SLP SEA LEVEL PRESSURE Pa

FLSH sensible heat flux W/m\*\*2

DLWB Downward Longwave Radiation at the Bot W/m\*\*2

DSWB Downward Shortwave Radiation at the Bot W/m\*\*2

ULWB Upward Longwave Radiation at the Bot W/m\*\*2

USWB Upward Shortwave Radiation at the Bot W/m\*\*2

EVSPS water vapor flux kg/m\*\*2/s

WSL010 H2O SOIL upper 10cm kg/m\*\*2

H2OSLT H2O SOIL (total) kg/m\*\*2

WETSL1 fraction of H2O in SOIL L1 0-1

WETSL2 fraction of H2O in SOIL L2 0-1

WETSL3 fraction of H2O in SOIL L3 0-1

TMPSL1 TMP SOIL L1 K

TMPSL2 TMP SOIL L2 K

TMPSL3 TMP SOIL L3 K

TMPSL4 TMP SOIL L4 K

ROF Total Runoff kg/m\*\*2/s

CVRSNWA Snow Coverage 0-1

SNP Snow Precipitation kg/m\*\*2/s

SWE Snow water equivalent kg/m\*\*2

DEPSNW Snow Depth \* CVRSNWA M

## 10. DATA POLICY

### 10.1 Data Policy by the Data Provider

1. These data sets are to be used only for scientific research, or educational or political purposes. Commercial use and exploitation of these data sets are prohibited. (Users shall keep in mind that the dataset creator may verify the purposes of their use.)

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2. Any modification or change of the original these data sets is prohibited.
  3. Any Re-export or transfer of the original data sets to a third party is prohibited.
  4. The origin of these data being used for any publication of scientific results must be acknowledged and referenced in the publication, with the "quotation" given below as an acknowledgement.
  5. Whenever these data sets are used for publication of scientific results, the author(s) shall send a copy of the respective publication, preferably in an electronic form or in a separate printed version, to the "Contact" as indicated above.

## 10.2 Data Policy by the Project

### 10.2.1 Data Integration and Analysis System

If data provider does not have data policy, DIAS Terms of Service (<https://diasjp.net/en/terms/>) and DIAS Privacy Policy (<https://diasjp.net/en/privacy/>) apply.

If there is a conflict between DIAS Terms of Service and data provider's policy, the data provider's policy shall prevail.

## 11. LICENSE

## 12. DATA SOURCE ACKNOWLEDGEMENT

### 12.1 Acknowledge the Data Provider

Whenever this data set is used for any academic presentations, and any publication of scientific results, the author(s) shall specify the following acknowledgement.

"This work uses the data set produced and provided in the FY2013 and FY 2014 climate change projection project conducted by the Ministry of the Environment of Japan. This data set is created and provided by using the climate models developed by the Meteorological Research Institute, in cooperation with the Japan Meteorological Agency, and the Program for Risk Information on Climate Change conducted by the Ministry of Education, Culture, Sports, Science and Technology of Japan."

### 12.2 Acknowledge the Project

#### 12.2.1 Data Integration and Analysis System

If you plan to use this dataset for a conference presentation, paper, journal article, or report etc., please include acknowledgments referred to following examples. If the data provider describes examples of acknowledgments, include them as well.

" In this study, [Name of Dataset] provided by [Name of Data Provider] was utilized. This dataset was also collected and provided under the Data Integration and Analysis System (DIAS), which was developed and operated by a project supported by the Ministry of Education, Culture, Sports, Science and Technology. "

## 13. REFERENCES